Publication number: JP2169612
Publication date: 1990-06-29
Inventor: IKEMATSU TAKESHI;
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Applicant: ASAHI CHEMICAL IND
Classification:
- international: ***C08F297/04; B29C61/06;*** **C08F297/00; B29C61/06;** (IPC1-7): C08F297/04
- European:
Application number: JP19880323267 19881223
Priority number(s): JP19880323267 19881223

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Abstract of **JP2169612**

PURPOSE:To obtain the title molding of excellent shape memory properties without the necessity for any special operation for shaping, such as crosslinking, by molding a block copolymer having a specified structure under specified conditions and remolding the obtained molding under specified conditions. CONSTITUTION: A block copolymer of a weight-average MW of 10000-1000000, having an A-B-A block structure in the polymer chain, wherein block A is a polymer comprising a vinylaromatic compound homopolymer, a copolymer there of with another vinylaromatic compound or a conjugated diene compound, or a hydrogenation product thereof and having a glass transition point >=50 deg.C, and block B is a polymer comprising a conjugated diene compound or a copolymer thereof with another conjugated diene compound or a vinylaromatic compound, wherein at least 50mol% of the unsaturated bonds of the conjugated diene units are hydrogenated to give a degree of a crystallinity >=5wt.% and at least 50wt.% of the crystal can melt at a temperature below the glass transition point of block A. The block copolymer is molded into a desired shape at a temperature above the glass transition point of block A and remolded into a shape different from that of the above at a temperature lower than its glass transition point.

Publication number: JP8196617
Publication date: 1996-08-06
Inventor: SHIKINAMI YASUO; IKADA YOSHITO; GEN JIYOUKOU; TSUTA KAORU; BOUYA HIDEKAZU
Applicant: TAKIRON CO; BIOMATERIAL UNIVERSE KK
Classification:
- international: ***A61L27/00;*** **A61L27/00;** (IPC1-7): A61L27/00
- European:
Application number: JP19950268999 19950925
Priority number(s): JP19950268999 19950925

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Abstract of **JP8196617**

PURPOSE: To provide a surgical material which has the same as bone or a little higher than that on compressive bending strength and compressive bending elastic modulus, by melt-molding a polylactic acid polymer having high molecular weight under a specified adjusted condition and drawing and cutting it. CONSTITUTION: This surgical material is an in vivo degradation absorbable material which is composed exclusively of a polylactic acid with viscosity average molecular weight of 300,000 to 600,000 or lactic acid-glycolic acid copolymer, thereby the surgical material having toughness and excellent hydrolysis- resistance is obtained by melt-molding these polymers and further cutting the drawn molding. On this occasion, the molding is cutting-worked into any shape of a plate, a pin, a machine screw, or a screw for bone conjugation. The compressive bending strength of the molding is 1.6× 10<3> kg/cm<2> or more, the compressive bending elastic modulus is 5.0× 10<2> kg/mm<2> or more, and the viscosity average molecular weight is 200,000 or more. Thereby, high compressive bending strength, the compressive bending elstic modulus and hydrolysis-resistance can be ensured.

Publication number: JP9040761
Publication date: 1997-02-10
Inventor: MATSUI MASAO; KOSEKI HIDEKAZU
Applicant: SHIMADZU CORP
Classification:
- international: ***C08G63/06; C08G63/08; C08G63/78;*** **C08G63/00**; (IPC1-7): C08G63/06; C08G63/08
- European:
Application number: JP19950193900 19950728
Priority number(s): JP19950193900 19950728

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Abstract of **JP9040761**

PROBLEM TO BE SOLVED: To obtain a polylactic acid block copolymer excellent in crystallinity, heat resistance, flexibility and toughness by forming a block copolymer consisting of crystalline segments and amorphous segments of lactic acid. SOLUTION: This polylactic acid block copolymer is one in which crystalline segments comprising a substantial homopolymer of poly-L-lactic acid or poly-D- lactic acid are combined with amorphous segments composed mainly of L-lactic acid and D-lactic acid. The heat absorption on melting of the crystal of the copolymer is preferably at least 5J/g. This copolymer is obtained by reacting an amorphous polymer composed mainly of L-lactic acid and D-lactic acid and having a hydroxyl group at least on one end with L-lactide or D-lactide, or reacting a substantial homopolymer or L-lactic acid or D-lactic acid having a hydroxyl group at least on one end with L-lactide, D-lactide and/or LD-lactide.

BIODEGRADABLE POLYMER COMPOSITION

Publication number: JP9095606
Publication date: 1997-04-08
Inventor: TOKUSHIGE YUJI; TANIFUJI YOICHI
Applicant: SHINETSU CHEMICAL CO
Classification:
- international: ***C08K5/098; C08L67/00; C08L67/04; C08L83/04; C08L101/16;*** *C08L101/16;* **C08K5/00; C08L67/00; C08L83/00; C08L101/00;** C08L101/00; (IPC1-7): C08L67/04; C08K5/098; C08L83/04
- European:
Application number: JP19950253067 19950929
Priority number(s): JP19950253067 19950929

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Abstract of **JP9095606**

PROBLEM TO BE SOLVED: To obtain a biodegradable polymer composition which mainly comprises a specific poly(lactic acid), has improved elongation at break and shock resistance without adverse effect on its tensile strength and transparency with excellent mold release characteristics, and is useful as a package material. SOLUTION: This biodegradable polymer composition mainly comprises (A) lactic acid oligomer (suitably comprising L-lactic acid, D-lactic acid or their mixture with a molecular weight distribution from dimer to pentacontamer (50-mer), (B) a thermal stabilizer (suitably lactic acid inorganic salt, for example, sodium lactate, calcium lactate, zinc lactate, lead lactate, barium lactate, aluminum lactate, iron lactate, silver lactate, magnesium lactate, manganese lactate, copper lactate or their mixture) and (C) a mold releasing agent (suitably a silicone oil having viscosity at 25 deg.C ranging from 10-10,000cs). The silicone oil is suitably an alkyl-modified silicone or methylstyryl-modified silicone, in an example, 100 pts.wt. of poly(lactic acid) are mixed with 10-15 pts.wt. of the component A, 2-3 pts.wt. of the component B and 1-2 pts.wt. of the component C.